

Application No. 09/586,641
Amendment dated November 14, 2005
Reply to Office Action of August 24, 2005

REMARKS

Interview with Examiner

Applicant's representative wishes to thank Examiner Thierry Pham for the courtesy of the Examiner's Interview. It is hoped that the remarks below will help to further clarify the process of correcting print data discussed during the interview.

Status Of Application

Claims 1-27 are pending in the application; the status of the claims is as follows:

Claims 1-3, 5-8, 10-13, 15-18 and 20-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,552,813 B2 to Yacoub ("Yacoub"), and in view of U.S. Patent No. 5,982,983 to Ito *et al.* ("Ito").

Claims 4, 9, 14 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yacoub as applied to claim 1 above, and in view of Japanese Publication No. 10-301737 (A) to Hirofumi *et al.* ("Hirofumi").

35 U.S.C. § 103(a) Rejections

The rejection of claims 1-3, 5-8, 10-13, 15-18 and 20-27 under 35 U.S.C. § 103(a), as being unpatentable over Yacoub, and in view of Ito, is respectfully traversed based on the following.

Claim 1 includes the limitation:

a substitution controller for correcting print data, that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which the problem

is detected by the detector and a color information of the selected substitute printer...

A careful parsing of this limitation reveals the following. The substitution controller corrects print data. The print data to be corrected is the print data that was to have been printed out by the printer with a problem ("Printer A"). The print data that was to have been printed out by Printer A will be called Data A. Data O corresponds to the original print data, such as might be generated by Word or PowerPoint. Data O is transformed to Data A based upon the color information of Printer A. As an example, the transformation from Data O to Data A could ensure that the image that would have been printed by Printer A would correspond to the color seen by the Word or PowerPoint user on the computer screen. As another example, the color produced by a printer may change over time. In this case, the transformation from Data O to Data A would ensure that images printed by Printer A at different times would remain constant. Visually, this transformation is shown in Fig. 1.

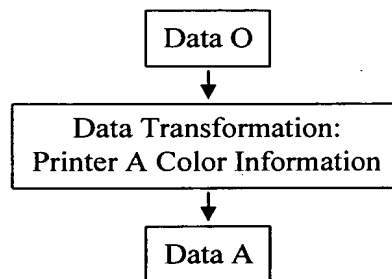


Fig. 1

Now that it is clear what data is being corrected by the substitution controller (Data A), how does the substitution controller correct this data? The claim requires that the substitution controller correct Data A based upon two pieces of information. The first piece of information is the color information of the printer in which the problem is detected, *i.e.*, Printer A. The second piece of information upon which the substitution controller corrects Data A is the color information of the selected substitute printer ("Printer B"). The correction process may thus be viewed as a two-step process; the first

step based upon Printer A color information, while the second step is based upon Printer B color information. Visually, the correction process is shown in Fig. 2.

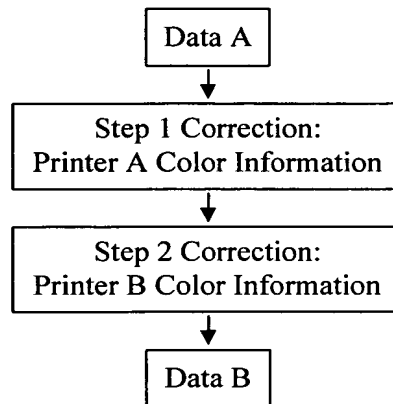


Fig. 2

While the illustrated process includes two steps, the claim does not require two steps. As the process involves the manipulation of data, it could be implemented using only a single step if the appropriate matrices are used. A less elegant process might involve a large number of steps. The primary requirement of the process is that it be based upon the “color information of the printer in which the problem is detected” and the “color information of the selected substitute printer.”

While retaining color fidelity across a number of printers is one of the obvious benefits of the present invention, another benefit is becoming increasingly important. As print data becomes increasing large (higher resolution graphics, etc.), the requirement for memory in a print server is similarly increasing. However, by using the current invention, once the print server has sent a print job to a printer, the print server need not retain the original print data. As will be shown below, the prior art required the print server to retain the original print data until a print job was completed. For a network print server controlling a large number of print jobs, a very large amount of memory was required.

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Thus, the present invention decreases demands on memory, thereby decreasing the cost of a print server.

The Office Action states "Yacoub fails to explicitly teach and/or suggest a substitution controller for correcting print data..." For this reason, Ito is combined with Yacoub. The Office Action asserts that Ito corrects print data based upon the color characteristics of both the printer with a problem and the substitute printer. In reality, Ito does not show this. Ito discloses a printing system that corrects printing data based upon the color information of the printer. However, there is no disclosure or suggestion that this correction process is based upon the color information of the printer with a problem (Printer A) and the color information of the substitute printer (Printer B). The Office Action cites column 2, lines 5-63 of Ito as showing that printing data is corrected based upon the color information of both Printer A and Printer B. This section admits that different printers will have different color information and that a print server will correct image data based upon the printer to which the printing data will be sent. There is no disclosure that the print server will correct printing data (Data A) that was to be printed by one printer (Printer A) for use by a second printer (Printer B). Ito appears to correct the original printing data (Data O) for printing by either Printer A (Data A) or Printer B (Data B). There is no correction from Data A to Data B disclosed or suggested by Ito. Visually, Ito's process is shown in Fig. 3. As shown in Fig. 3, Ito does not correct Data A (Data O transformed for Printer A), but rather transforms Data O itself.

The Office Action also cites to column 4, lines 18-40 of Ito for the same proposition. However, column 4 merely provides a concrete example of the transformation process itself, it does not show that the data for Printer A, *i.e.*, Data A, is being corrected for printing on printer B, *i.e.*, Data B. Further, there is no disclosure or suggestion that any single data correction process is based upon the color information of two printers. Lastly, the Office Action cites to column 7, lines 60-67 of Ito. Column 7 merely reiterates that printing data is corrected for each printer that may have different color information.

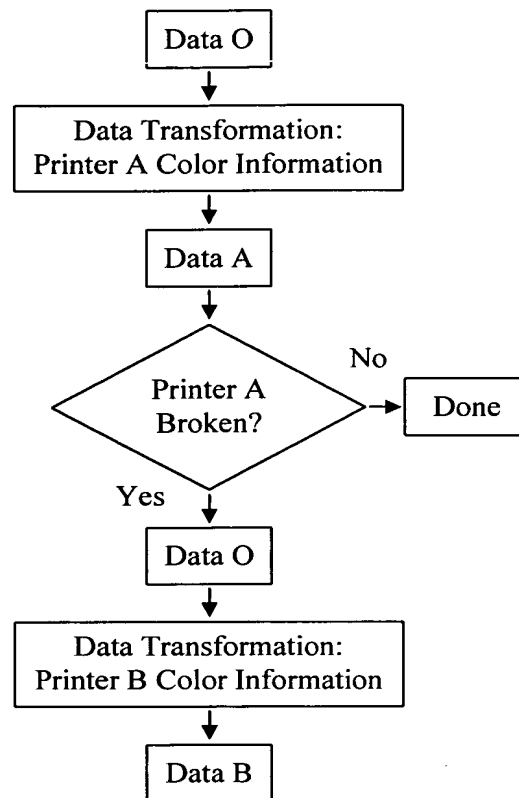


Fig. 3.

Because Ito only corrects the original printing data (Data O), not the printing data sent to the first printer (Data A, Printer A), Ito's print server will require a great deal of memory. Ito's print server must retain the original print data (Data O) from a print job until it has verified that the print job has completed. If it does not retain Data O, Ito's print server will be at a loss as Ito does not disclose or suggest correcting the printing data sent to the first printer (Data A, Printer A).

Based upon the above discussion of Ito, it is clear that Ito fails to disclose or suggest at least the limitation of claim 1 that requires "a substitution controller for correcting print data, that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which the

problem is detected by the detector and a color information of the selected substitute printer.” Thus, the combination of Yacoub and Ito fails to disclose or suggest at least one limitation of claim 1 and therefore cannot render claim 1 obvious. Claims 2, 3, 5 and 21 depend from nonobvious claim 1 and are nonobvious for at least the same reason.

The method of claim 6 requires:

correcting print data, that was to have been printed out by the printer in which the problem is detected in said detecting step, based on a color information of the printer in which the problem is detected by the detector and a color information of the selected substitute printer...

As discussed above, the combination of Yacoub and Ito fails to disclose or suggest this limitation of claim 6, and therefore cannot render claim 6 obvious. Claims 7, 8, 10 and 22 depend from nonobvious claim 6 and are nonobvious for at least the same reason.

The computer readable medium of claim 11 requires computer code for:

correcting print data, that was to have been printed out by the printer in which the problem is detected by said detection control, based on a color information of the printer in which the problem is detected by the detector and a color information of the selected substitute printer...

As discussed above, the combination of Yacoub and Ito fails to disclose or suggest this limitation of claim 11, and therefore cannot render claim 11 obvious. Claims 12, 13, 15 and 23 depend from nonobvious claim 11 and are nonobvious for at least the same reason.

The printing system of claim 16 requires a controller for:

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correcting print data that was to have been printed out by said first printer, based on a color information of the first printer in which the problem is detected by the detector and a color information of the second printer...

As discussed above, the combination of Yacoub and Ito fails to disclose or suggest this limitation of claim 16, and therefore cannot render claim 16 obvious. Claims 17, 18, 20 and 24 depend from nonobvious claim 16 and are nonobvious for at least the same reason.

The printer control method of claim 25 requires:

correcting the print data that was to have been printed out by the first printer and was processed based on the first reproduction characteristic for printing by the first printer, based on both the first reproduction characteristic and the second reproduction characteristic...

Claim 25 thus makes it even clearer that the data to be corrected has already been transformed once in an effort to compensate for the reproduction characteristics of the first printer. As discussed above, the combination of Yacoub and Ito fails to disclose or suggest this limitation of claim 25, and therefore cannot render claim 25 obvious. Claims 26 and 27 depend from nonobvious claim 25 and are nonobvious for at least the same reason.

Accordingly, it is respectfully requested that the rejection of claims 1-3, 5-8, 10-13, 15-18, and 20-27 under 35 U.S.C. § 103(a) as being unpatentable over Yacoub, and in view of Ito, be reconsidered and withdrawn.

The rejection of claims 4, 9, 14 and 19 under 35 U.S.C. § 103(a), as being unpatentable over Yacoub as applied to claim 1 above, and in view of Hirofumi, is respectfully traversed based on the following.

While the heading in the Office Action states claims 4, 9, 14 and 19 are rejected over Yacoub and Hirofumi, the text discusses Ito as well. The following discussion is based upon the assumption that the rejection was intended to be over the combination of Yacoub, Ito and Hirofumi.

Claim 4 depends from claim 1 and thereby incorporates each limitation of claim 1. As shown above, the combination of Yacoub and Ito fails to disclose or suggest the following limitation of claim 1:

a substitution controller for correcting print data, that was to have been printed out by the printer in which the problem is detected by said detector, based on a color information of the printer in which the problem is detected by the detector and a color information of the selected substitute printer...

Hirofumi discloses a print system in which a second printer completes a print job that is partially completed by a first printer prior to the occurrence of a problem with the first printer. Hirofumi's print system thus provides a complete print job without intervention by a user, and without printing duplicate pages. However, Hirofumi does not disclose correcting print data and certainly does not disclose correcting print data based upon the color information of two different printers. Therefore, the combination of Yacoub, Ito and Hirofumi fails to disclose the above limitation of claim 1. As claim 4 depends from nonobvious claim 1, it is nonobvious for at least the same reason.

Claims 9, 14 and 19 depend from claims 6, 11 and 16, respectively. As discussed above, the combination of Yacoub and Ito fails to disclose or suggest each limitation of claims 6, 11 and 16. Similarly, the combination of Yacoub, Ito and Hirofumi fails to disclose or suggest each limitation of claims 6, 11 and 16, and thus cannot render claims 6, 11 and 16 obvious. As claims 9, 14 and 19 depend from nonobvious claims 6, 11 and 16, respectively, claims 9, 14 and 19 are nonobvious for at least the same reason.

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Accordingly, it is respectfully requested that the rejection of claims 4, 9, 14 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Yacoub as applied to claim 1 above, and in view of Hirofumi, be reconsidered and withdrawn.

CONCLUSION

In view of the foregoing, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are respectfully requested.

This Response does not increase the number of independent claims, does not increase the total number of claims, and does not present any multiple dependency claims beyond the number of claims originally paid for. Accordingly, no fee based on the number or type of claims is currently due. If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such a Petition for Extension of Time or any other fee required by this response, including any fee pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin

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